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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/659,599 09/11/00 MCGALL G 3357

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EXAMINER

EPPS, J

ART UNIT	PAPER NUMBER
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1635

DATE MAILED:

05/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/659,599	Applicant(s) MCGALL, GLENN H.	
	Examiner Janet L Epps	Art Unit 1635	

-- Th MAILING DATE of this communication app ars on th cov r sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 20) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: it does not identify the post office address of Glenn H. McGall. A post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The post office address should include the ZIP Code designation.

Claim Objections

2. Claims 2-3 and 29 are objected to because of the following informalities: the term "nucloetide" recited in this claim is spelled improperly. The correct term is likely "nucleotide." Claim 1 recites the term "CH₂)n ", this term has an unmatched left parenthesis. It is likely that the proper term is "(CH₂)n." Claim 29 recites ".A" this term is likely the result of a typographical error, the correct term is likely "A".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 1-29 recite a compound of the group consisting essentially of the structures shown below, designated as "Y."

The use of the transitional phrase "consisting essentially of" with respect to the definition of the compound recited in claim 1 is vague and indefinite since it is unclear what structures other than those designated as "Y" qualify as members of the claimed compound. The use of the transitional phrase "consisting essentially of" is usually reserved for claims reciting a composition, and is used to limit the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. (MPEP§ 2111.03) As applied to the compound of the instant invention unclear what other elements "do not materially affect the basic and novel characteristic(s)" of the claimed compound.

This definition of "Y" is ambiguous since there are duplicate structures recited in the group of compounds designated as "Y." Additionally, there are several structures recited in claim 1 that comprise R1 and R groups, however there is no definition given for these generic groups. Although the specification provides a definition for these groups (see page 6, lines 25-26), and normally claims should be interpreted in light of the specification disclosure, it is generally considered improper to read limitations contained in the specification into the claims. See *In re Prater*, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969) and *In re Winkhaus*, 527 F.2d 637, 188 USPQ 129 (CCPA 1975), which discuss the premise that one cannot rely on the specification to impart limitations to the claim that are not recited in the claim.

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The term "weakly basic group" in claim 1 is a relative term that renders the claim indefinite. The term "weakly basic group" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Therefore the structures which comprise a B group are rendered ambiguous since it is unclear what groups fit the definition wherein B is "an aprotic weakly basic group."

6. Claim 2 recites "[t]he compound of claim 1, further comprising a chemical fragment selected the group consisting of an amino acid, a peptide, nucleoside, nucleotide, polynucleotide or analogs thereof, a monosaccharide and a protein." This phrase is vague and indefinite since it is unclear how the structures recited in claim 1 are structurally related to the compounds of claim 1. Specifically, if the compounds of claim 1 are somehow to exist in the same compound with a fragment recited in claim 2, it is unclear how they are to be chemically linked. With what type of bond are they to be associated, and between which atoms is this association to occur?

7. Claim 5 recites the limitation "said first molecule," there is lack of antecedent basis for this limitation in the claim.

8. Claims 5-23, and 26-29 recite the term "Y-C(O)-", this term is vague and indefinite since it is unclear how the -C(O)- group is associated with the structures designated in claim 1 with respect to "Y."

9. Claim 24 recites "wherein the compound Y is Me₂NPOC, Me₃NPOC; NP₂NPOC; NA₁BOC; 5'-TEMPOC and NINOC." Claim 25 recites "wherein the compound Y is Me₂NPOC-T-CEP; Me₃NPOC-T-CEP; NP₂NPOC-T-CEP; NA₁BOC-T-

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CEP; 5'-TEMPOC-T phosphoramidite and NINOC-T-CEP. However, the exact relationship between the compound NP2NPOC and compounds listed in claim 1 is unclear since the structure of NP2NPOC as described in the specification as filed does not comprise any of the structures listed in claim 1. Additionally, neither the specification as filed nor the claims define the structure of NA1BOC. According to the specification NA1BOC is described in Figure 8, however there is no reference to NA1BOC in this figure, only NNEOC-T-CEP is exemplified in Figure 8. Therefore, the structure of NA1BOC is not clearly defined in the specification or in the claims.

10. Claims 24-29 appear to claim a Markush group without the proper use of the Markush format. Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. With respect to claims 24, 26, and 28, the metes and bounds of Markush language in these claims is indefinite because it is unclear if the compound Y corresponds to one of the group Me2NPOC; Me3NPOC; NP2NPOC; NA1BOC; 5'-TEMPOC and NINOC, or if the compound Y is to correspond to all members of the cited group. With respect to claims 26 and 29, the Markush language is indefinite since it is unclear if the compound designated as Y corresponds to one of the group Me2NPOC-T-CEP; Me3NPOC-T-CEP; NP2NPOC-T-CEP; NA1BOC-T-CEP; 5'-TEMPOC-T phosphoramidite and NINOC-T-CEP, or if the compound Y is to correspond to all members of the cited group. Additionally, it is unclear if Y refers to one or all members of the group Me2NPOC-T-CEP; Me3NPOC-T-CEP; NP2NPOC-T-CEP; NA1BOC-T-CEP; and 5'-TEMPOC-T phosphoramidite.

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One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being "selected from the group consisting of A, B and C." See *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925).

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Okamoto et al.

The use of the transitional phrase "*consisting essentially*," recited in claim 1, and those claimed dependent thereon, is being considered equivalent to the term "*comprising*" since the specification as filed does not include a clear indication of what the basic and novel characteristics of the claimed compound actually are. Since, it is not clear whether an additional component in the prior art would materially affect the basic and novel characteristics of the claimed compound, the following prior art is applied. Moreover, since the specification as filed describes the compounds designated as "Y" as comprising substituents other than hydrogen in the aromatic ring, for prior art purposes the structures recited in claim 1 will be interpreted as Additionally, since the formula Y-C(O)- is ambiguous with regards to the attachment of the -C(O)- moiety to the Y compound, this formula will be interpreted as meaning a Y compound comprising a -C(O)- moiety.

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Okamoto et al. disclose a compound comprising one of the structures designated as "Y" recited in claim 1, wherein said structure is N2POC (see Figure 1 of the instant specification for structure defined as N2POC; see page 24 of Okamoto et al., compound #19).

Okamoto et al. teach each and every aspect of the instant invention thereby anticipating Applicant's claimed invention.

13. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Martinez et al. Claim 1 is interpreted as set forth above.

Martinez et al. teach the synthesis of active esters of amino acids with hexachlorotriphosphatriazine. In one embodiment of this reference, the compound, hexachlorotriphosphatriazine, is reacted with N-protected amino acids, triethylamine (NEt₃) and chloroform (CHCl₃), to produce optically pure esters of amino acids. In one particular example, (RN:6154-41-2), the compound Glycine, N-[(phenylmethoxy)carbonyl]-, 2-nitrophenyl ester was produced by this method. The cited compound comprises one of the structures designated as "Y" recited in claim 1, wherein said structure is N2POC (see structure referring to RN:6154-41-2 attached to reference and abstract).

Martinez et al. teach each and every aspect of the instant invention thereby anticipating Applicant's claimed invention.

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Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto et al. for the reasons set forth in the above rejection under 35 USC 102(b) over Okamoto et al.

Therefore, the invention as a whole would have been *prima facie* obvious over Okamoto et al. at the time the invention was made.

16. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martinez et al. for the reasons set forth in the above rejection under 35 USC 102(b) over Martinez et al.


Therefore, the invention as a whole would have been *prima facie* obvious over Martinez et al. at the time the invention was made.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L Epps whose telephone number is 703-308-8883. The examiner can normally be reached on Mondays through Friday, 9:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John LeGuyader can be reached on (703)-308-0447. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-7939 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.


Janet L. Epps
Patent Examiner
May 21, 2001